RASTA
Center for Road Technology

Letter No: RAS/ Con/ 15-16/ 519

To,
The Commissioner,
Office of the Commissioner, BBMP Head Office,
N.R.Circle,
Bangalore.

Date: 16.06.15

Dear Sir,

Ref: Your letter No. A/PR/G667/15-16 dated 02-05-2015
Sub: Inspection of Completed works and Pending Bills

With reference to the above subject the Inspection of the following works of Ward no. 7, Kodigehalli Sub Division, Byatarayanapura has been completed and the Inspection Report is enclosed for your reference.

1. Improvement to Roads and drains from NH-7 to Jakkur Kaval Road in Ward No 7 Kodigehalli Sub Division (Sl. No. 1)
2. Improvement of Roads in Muneshwara swamy Temple roads and cross roads at Amruthahalli in ward No.7 Kodigehalli Sub Division(Sl. No.2)
3. Improvements of Roads, drains and culverts in main Roads and Cross roads in Hottappa Layout in ward No. 7, Kodigehalli sub division (Sl. No.6)
4. Improvements to Road drains and asphalting to roads in Vinayaka L/O 1st main, 2nd stage in Ward No:07 Byatarayanapura in Kodigehalli sub division (Sl. NO. 8)
5. Improvement to Road drains and Asphalting to roads in Vinayaka L/O 2nd cross, 1st stage in ward no:07, Byatarayanapura in kodigehalli sub division (Sl. NO.9)
6. Improvement to Road drains and Asphalting to roads in Vinayaka L/O 2nd main, 2nd stage in ward no:07, Byatarayanapura in kodigehalli sub division (Sl. No.10)

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7. Improvement to Road drains and Asphalting to roads in Venkanagowda layout Kempapura 1st B Main in Ward No.07 (Sl. NO.12)
8. Improvements of Roads and construction of RCC drain in "A" Block Sahakarnagar in Ward No.07, Kodigehalli Sub division (Sl. NO. 13)
9. Improvement of Roads and drains in Vayunnadara layout and Nethajinagar in ward No.7 Kodigehalli Sub Division (Sl. NO. 14)
10. Construction of dry waste collection centre at Amruthanagara in Ward no:07 of Kodigehalli Sub division (Sl. NO. 17)
11. Construction of RCC drain at Maramma Temple main road in Amruthahalli in Ward No. 07 K.S.D (Sl. No. 18)
12. Providing and Fixing name boards in Vinayaka and Venkatagowda Layout in Ward No.07 Byatarayanapura, Kodigehalli sub division (Sl. NO. 19)
13. Improvements of Concrete roads and drains at Byatarayanapura in Ward No.07 of Kodigehalli sub division (Sl. NO. 28)
14. SC / ST Houses Bill (6 items)

Please do the needful.

Regards,

Dr. Krishnamurthy
Professor – PG studies & STA
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Copy to:

1. Executive Engineer, BBMP Yelahanka

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INSPECTION REPORT

Sl No	Item	Description
1	Name of Work	Improvement to Roads and drains from NH-7 to jakkur Kaval Road in Ward No 7 Kodigehalli Sub Division (Sl. No. 1)
2	Estimate Cost	150 lakhs
3	Administrative Approval No and Date	JC/YEL/AA/71/11-12 dt: 23-9-2011
4	Technical sanction No. and Date	CE/YEL/AA/71/11-12 dt: 28/9/2011
5	Job Code No. and P Code No.	007-12-000036 P-2019
6	Tender Direct Entrested to KRIDL	---
7	If Tender, Tender Notification No. Date and Publication in daily news Paper	EE/BTP/BBMP/E-PMT/14/11-12 dt: 10/2/2012 PRAJAVANI 1/3/12
8	Tender Approved Details	---
9	Work Order No and Date	EE/BTP/BBMP/E-TND/04/12-13 dt: 30/4/2012
10	Stipulation time of Completion	180 DAYS
11	Actual Date of Commencement	Data Not available
12	Actual Date of Completion	29/5/13
13	Delay if any	Data Not available
14	Reson for Delay	Data Not available
15	Payment made till date.	Rs. 12342547
16	BR NO. and Date	66 Dt 29/5/13
17	Status of Work	Completed
18	Photograph verfied	Yes
19	Date of Inspection	27.05.15
20	MB No. and Page No.	1933 Pg.No 193224
21	Test Result	Please refer Annexure -1 enclosed
22	Section officer	Basavaraju
23	Sub Division Officer	K P Neelakantaiah

	Observation	Please refer Annexure -2 enclosed
a	Work Quality	Satisfactory
b	Comments	It was observed that Mix design for gradation and optimum binder, air voids and stability is not being conducted for most of the BBMP works, and hence the material is getting degraded and resulting in less durability.It was oberved that the thickness of WMM is 175mm and SDBC has an average thickness of 22mm. This deficiency could be attributed to the wear and tear, settlement, whip off, over a period of about 2 years which the pavement has already served.A permissble 5-10 % wear and 10% whip off can be acceptable for a pavement which has served for about 2 years. The work has been carried out with good quality according to specifications. Surface condtion is good and camber has been provided. This being the last and final bill of amount Rs.16.46 Lakhs out of the total cost of 150 Lakhs and as the works stands completed as on date and is found satisfactory the Bill may be considered for clearance.

Executive Engineer
Byatarayanapura Division
Yelahanka Zone, B.B.M.P.
Bangalore-560092

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Name of the work: - Improvement to Roads and drains from NH-7 to Jakkur Kaval Road in Ward No 7 Kodigehalli Sub Division (Sl. No. 1)

Client: - BBMP, Bytarayanapura

Sample: - Semi Dense Bituminous Core (Core No. 301)

Location: Sl.No. 1; Jakkur plantation; near Shobha Ultima; LHS kerb side

Annexure-I **Test Results**

Check for **Semi Dense Bituminous Core**, obtained from field – Binder Content & Aggregate Gradation

Table 1

Chain age	Sieve size mm	Obtained Gradation %Passing	Desired Gradation **SDBC** Grade II % Passing	Remarks
Sl.No. 1; Jakkur plantation; near Shobha Ultima; LHS kerb side	19	100	-	As the mix design has not been followed, the degradation of materials is observed.
	13.2	100	100	
	9.5	92.85	90-100	
	4.75	62.36	35-51	
	2.36	32.45	24-39	
	1.18	16.73	15-30	
	0.6	12.32	-	
	0.3	8.68	9-19	
	0.15	5.75	-	
	0.075	3.19	3-8	

Check for Binder Content in **SDBC** Core {Grade II} { Sl.No. 1; Jakkur plantation; near Shobha Ultima; LHS kerb side } – By Bitumen Extraction Test

Total weight of Semi Dense bituminous (Core) mix taken-500g

Table 2

Binder Content	Binder Content for SDBC Grade II as per MoRTH specification.	Remarks
4.96 %	Requirement Min 5.0%	Deficiency due to evaporation of volatiles and ageing

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Name of the work: - - Improvement to Roads and drains from NH-7 to Jakkur Kaval Road in Ward No 7 Kodigehalli Sub Division (Sl. No. 1)

Client: - BBMP, Bytarayanapura

Sample: - Semi Dense Bituminous Core (Core No. 303)

Location: Sl.No. 1; Jakkur plantation; opposite Daffodils; RHS; near median

Annexure I –**Test Results**

Check for **Semi Dense Bituminous Core**, obtained from field – Binder Content & Aggregate Gradation

Table 1

Chain age	Sieve size mm	Obtained Gradation %Passing	Desired Gradation **SDBC** Grade II % Passing	Remarks
Sl.No. 1; Jakkur plantation; opposite Daffodils; RHS; near median	19	100	-	As the mix design has not been followed, the degradation of materials is observed.
	13.2	100	100	
	9.5	94.58	90-100	
	4.75	60.20	35-51	
	2.36	24.49	24-39	
	1.18	13.65	15-30	
	0.6	10.55	-	
	0.3	7.88	9-19	
	0.15	5.66	-	
	0.075	3.42	3-8	

Check for Binder Content in **SDBC** Core {Grade II} { Sl.No. 1; Jakkur plantation; opposite Daffodils; RHS; near median } –

By Bitumen Extraction Test

Total weight of Semi Dense bituminous (Core) mix taken-500g

Table 2

Binder Content	Binder Content for SDBC Grade II as per MoRTH specification	Remarks
4.56 %	Requirement Min 5.0%	Deficiency due to evaporation of volatiles and ageing

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ANNEXURE 2- INSPECTION REPORT - OBSERVATIONS

Name of the Work: Improvements to Road drains and asphalting to roads in Vinayaka L/O 1st main, 2nd stage in Ward No:07 Byatarayanapura in Kodigehalli sub division					
Sl No	**Item**	**Measurements and Qty as per Claims (MB & Bills)**	**Measurements and Qty as per Actuals**	**Deviation**	**% Deviation**
1	Length of stretch	620m	620m*	NIL	NIL
2	Width	11.5m	11.5m	NIL	NIL
3	Providing & Laying BM	50mm	48mm	2mm	4
4	Providing & Laying SDBC	25mm	22mm	NIL	NIL
5	Drain width	0.9m	0.85m(avg)	0.05m	6%
6	Drain depth	1m	0.8m	0.2m	2%

* Note: A small stretch of about 170m has not been taken for improvement due to litigation.

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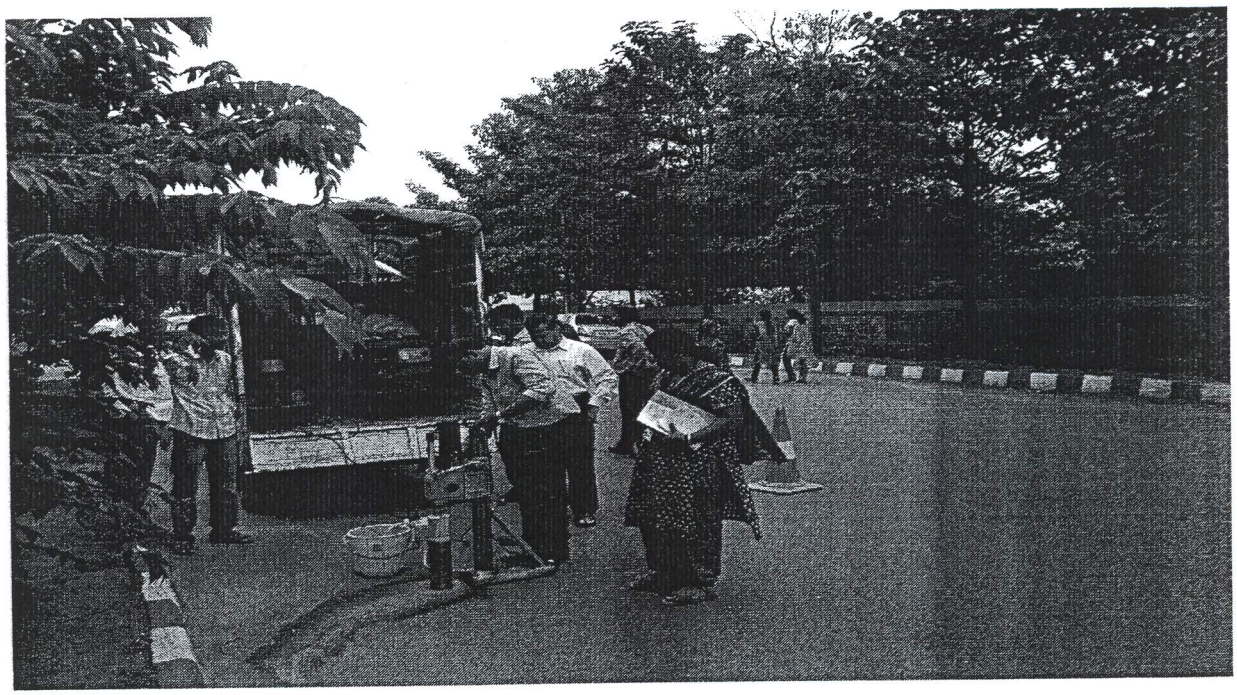
WARD NO. 7, KODIGEHALLI SUB DIVISION, BYATARAYANAPURA INSPECTION PHOTOS



Improvement to Roads and drains from NH-7 to jakkur Kaval Road in Ward No 7 Kodigehalli Sub Division (Sl. No. 1) – Core being extracted for thickness checking